



Department of Toxic Substances Control



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Secretary for
Environmental Protection

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Arnold Schwarzenegger
Governor

September 13, 2006

Mr. Jim Levy
Union Pacific Railroad Co.
9451 Atkinson Street, Suite 100
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EXPLANATION OF SIGNIFICANT DIFFERENCES REGARDING NORTH WEST CORNER RAP AMENDMENT, UNION PACIFIC RAILYARD-SACRAMENTO SITE

Dear Mr. Levy:

The Department of Toxic Substances Control has prepared the enclosed Explanation of Significant Differences (ESD) to address modifications proposed to the remedy approved under the 2003 Lagoon Study Area Remedial Action Plan (RAP) Amendment for the North West Corner. The enclosed ESD has been prepared to amend the site RAP administrative record to primarily address:

- Expanding the ten acre capped area to include the adjoining 3.5 acre former oil storage area.
- Modifying the top deck material of the planned cap from a combination of asphalt top and soil (vegetative) side slopes, to a geosynthetic barrier material overlain by two feet of clean soil (vegetative) cover.
- Using inert onsite soils (up to 230,000 cubic yards) as a foundation layer for the capped area.

Prior to implementing construction of the Cap, a design work plan will be prepared for DTSC review and approval. Please provide within two weeks, a schedule for preparation, review and approval of the design document in order to accommodate construction anticipated to begin Spring 2007.

If you have any questions, please contact Mr. Paul Carpenter at (916) 255-6534.

Sincerely,

Fernando Amador, Chief
Sacramento Responsible Party Unit

Enclosure

Mr. Jim Levy
September 13, 2006
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EXPLANATION OF SIGNIFICANT DIFFERENCES Cap Expansion and Foundation Material Modifications Lagoon Study Area Northwest Corner Union Pacific Railroad Company - Sacramento Railyard Site

INTRODUCTION

The Union Pacific Railroad Company (UPRR) Sacramento Railyard (Sacramento Railyard) is located at 401 I Street in Sacramento, California. The Sacramento Railyard lies immediately north of downtown Sacramento, near the confluence of the Sacramento and American Rivers, and encompass approximately 240 acres. The Sacramento Railyard, owned for many years by SPTCo and currently owned by UPRR, successor-in-interest to SPTCo., was used for over one hundred (100) years as a locomotive construction, repair and maintenance facility.

The Department of Toxic Substances Control (DTSC) and UPRR entered into an Enforceable Agreement, dated June 2, 1988, as amended, for the investigation and appropriate remediation of the UPRR Sacramento Railyard. The site has been divided into seven study areas including Northern Shops/ Drum Storage, Central Shops, Car Shop Nine, Central Corridor, Sacramento Station, Pond and Ditches, and Lagoon. This Explanation of Significant Differences (ESD) focuses on the Northwest (NW) Corner of the Lagoon Study Area (LSA), which consists of approximately 10.3 acres in the northwestern portion of the LSA and adjoining 3.5 additional acres consisting of the Former Oil Storage Area (FOSA, see Attachment A). A more detailed description of these areas is provided in the "Site History, Contamination and Selected Remedy" section, herein.

For the LSA, DTSC approved the LSA Remedial Action Plan (RAP) (2000) and NW Corner RAP Amendments (2003), as referenced in the "List of Documents and Correspondence" section of this document. DTSC continues to provide regulatory oversight as lead agency for cleanup of hazardous substances at the UPRR site. The Central Valley Regional Water Quality Control Board (CVRWQCB), the City of Sacramento (City), and the Sacramento Air Quality Management District (SAQMD) provide oversight as support agencies.

This ESD addresses modifications to the approved NW Corner RAP Amendments, as listed in the "List of Documents and Correspondence" section of this document. This ESD has been prepared to modify the approved 2003 NW Corner RAP Amendments for the following three modifications:

- Using inert onsite soils as a foundation layer at the NW Corner (including the FOSA), with a maximum volume of soil (determined by the area footprint and slope factors) as 230,000 cubic yards;
- Modifying the top deck material from asphalt to a High Density Poly Ethylene (HPDE) geosynthetic barrier material overlain by two feet of clean soil (vegetative layer), with appropriate protective measures and controls.
- Expanding the area to be covered to include the additional 3.5 acres of the FOSA.

REGULATORY BASIS OF THIS DOCUMENT

If the lead agency (DTSC) determines that a significant change to the remedy selected in a RAP is necessary after the RAP is approved, the law requires the lead agency to address post-RAP significant changes.

This action is taken pursuant to Section 1178 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 as amended by the Superfund Amendments and Reauthorization Act of 1986 (CERCLA) and 40 Code of Federal Regulations (CFR) Section 300.435(c)(2)(1) (National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The NCP requires that an ESD be prepared where significant differences in the scope, performance, or cost of a remedy adopted by the RAP occur, but do not fundamentally alter the remedy selected, as described in this ESD.

SITE HISTORY, CONTAMINATION, AND SELECTED REMEDY

The Sacramento Railyard was used as a locomotive maintenance yard from 1863 until the 1990's. It currently encompasses about 240 acres located adjacent to downtown Sacramento, near the confluence of the Sacramento and American Rivers. Heavy industrial maintenance and locomotive rebuilding work conducted at the site included foundry and machine work, blacksmithing, painting, and machine cleaning. The site is now inactive, with industrial activities and principal functions moved elsewhere, and many buildings and structures removed. For remediation, the Railyard has been divided into seven study areas based on historical land use and industrial practices, contaminant profiles and matrix type (i.e., soil or groundwater).

The LSA occupies approximately 51 acres within the northern and eastern portions of the Sacramento Railyard and has been further subdivided into the Lagoon Proper and Lagoon NW Corner areas. The LSA NW Corner occupies approximately 10.3 acres in the northwestern portion of the LSA. The boundaries of the LSA NW Corner are defined by the 3.5 acre FOSA to the west, the Sacramento Railyard Property Line to the north, and the former Lagoon Proper and the flood control levee to the east and south

(Attachment A). Heavy industrial operations did not occur in the LSA NW Corner. These areas are all vacant and have been inactive for several years. Two small areas (2,000 cubic yards) of bunker fuel-impacted soil were removed in the FOSA in 1993.

The following general conditions are noted for the LSA NW Corner:

1. The distribution of contaminants in soil is sporadic, and is indicative of the use of the area for disposal of solid waste, mostly construction debris;
2. Significant quantities of large concrete debris are present;
3. The materials pose minimal risks to groundwater, and no sources of groundwater impact are present;
4. Debris with asbestos containing materials (ACM) is present.

The primary Constituents of Concern (COCs) identified at the NW Corner and the FOSA include benzo(a)pyrene, lead, antimony, nickel, extractable hydrocarbons and ACM debris. The contaminants have been determined by DTSC and the RWQCB to not exceed the concentrations which pose a threat to groundwater. There are no current sources of groundwater contamination at the NW Corner or FOSA, although underlying groundwater has been impacted by other Railyard sources.

Soil remediation methods approved under the 2000 LSA RAP include excavation of impacted soil, treating and stabilizing certain soils prior to reuse or disposal, and offsite disposal of soil impacted above Remedial Action Goals (RAGs). The approved 2003 NW Corner RAP Amendments expanded the remedial alternative to include grading and capping approximately 10.3 acres in the LSA NW Corner beneath an engineered protective cover designed with the intent of meeting California Code of Regulations (CCR) Title 27 requirements to the extent feasible.

BASIS FOR THE ESD DOCUMENT

The decision that the proposed modifications do not represent a fundamental departure from the design approved in the 2003 Amendments to LSA RAP for NW Corner Soil is based on the following:

1. The onsite soil proposed for placement in the NW Corner as foundation materials beneath the proposed cap area shall consist of inert material, as defined for this site in a letter submitted by Environmental Resources Management (ERM) to the CVRWQCB dated March 29, 2005 and approved by the CVRWQCB on April 14, 2005, with the clarification that the water quality goal used for calculating the Soluble Designated Level for lead be 2.0 µg/l.
2. The geosynthetic cap material and two foot vegetative layer are equally or more protective than the approved asphalt cover, because the geosynthetic material has a lower permeability and higher durability. The vegetative layer will prevent wind and water erosion, minimize percolation of surface water into the waste layer and maximize evapotranspiration. Drainage features will also be constructed to route

excess runoff to a percolation pond constructed adjacent to the capped area. These drainage features will enhance runoff and minimize infiltration of excess water through the cap.

3. The FOSA incorporation into the proposed NW Corner remedy does not alter the NW Corner remedy effectiveness, and will provide an equal or enhanced remedial alternative for the FOSA. During clearing and grubbing activities in the FOSA in Spring 2003, appreciable amounts of construction debris and ACM were identified in the FOSA. Removal of this debris in accordance with approved LSA RAP was found to be impractical, and led to the proposals to incorporate the FOSA into the NW Corner cap remedy. The additional 3.5-acre FOSA expands the approved LSA NW Corner cap from 10.3 to 13.8 acres. The FOSA lies in an area of limited access and is continuous to the LSA NW Corner, hence the grading and drainage plan will not change significantly from that presented in the 2003 Amendments to LSA RAP for NW Corner Soil.
4. The draft 2006 revised development plans for the Sacramento Railyard anticipate the proposed land use of the NW Corner to be a 13-acre "open space", more specifically defined as a public park. A Health Risk Assessment Addendum (HRAA, May 2005) was performed to evaluate the more focused open space scenarios of potential adult and child park users. The HRAA also includes evaluation of the data collected within the FOSA, which was not previously included in the LSA NW Corner HRA/FFS. The HRAA concluded that the use of the LSA NW Corner as a park (with a geosynthetic cap overlain by two feet of clean soil) does not pose unacceptable risks to potential adult and child park users and park maintenance workers. DTSC's Human and Ecological Risk Division (HERD) has reviewed the HRAA, and has concurred with these conclusions.
5. Under the terms of the 1994 Memorandum of Understanding (MOU), the Department has coordinated with the City of Sacramento on the proposed NW Corner modifications outlined in this document. The City has agreed the modified cap design will be adequately protective as an alternative to the Land Use Specific Remediation Approach (LUSRU) approved under the 1994 MOU. The City has also concurred with revisions which provide accommodations for the anticipated roadways in the NW Corner area, such as the extension of Sixth Street, and that the modifications will not conflict with the anticipated land use. The City has also acknowledged the long term maintenance requirements and restrictions associated with the cap remedy which will ensure the long term protection and effectiveness of the cap system.

All protective measures considered in the RAP, Amendments to the RAPs, EIRs, correspondence, design documents and design implementation plans will apply to the cap construction activities, including the following: dust control, air monitoring, runoff control, transportation route monitoring, noise controls, limited hours of operation for onsite work and transportation of soils.

AFFIRMATION OF STATUTORY DETERMINATION

This final remedy satisfies the requirements of CERCLA Section 121. The proposed modifications under this ESD supplements and does not fundamentally alter the cap soil remediation strategy approved under the 2003 Amendments to LSA RAP for NW Corner Soil. The incremental change to the approved soil remediation strategy remains protective of human health and the environment, complies with federal and state applicable or relevant and appropriate requirements, and remains cost effective.

To meet the requirements of the California Environmental Quality Act, DTSC, in its role as the Lead Agency for the soil remediation of the site and a responsible agency for development of the site, has considered the Environmental Impact Reports (listed below) prepared for and certified by the City. DTSC has determined that the EIRs and supporting documents adequately address the potential impacts of the project now before the DTSC for decision. DTSC, using its independent judgment has determined that the project, in its approved form, will not result in a significant adverse effect on the environment. A Notice of Determination (NOD) indicating the results of said findings will be filed with the State Clearinghouse of the Governor's Office of Planning and Research pursuant to Section 15096(i) of the State CEQA Guidelines.

LIST OF DOCUMENTS AND CORRESPONDENCE

Remediation of the LSA NW Corner and the FOSA has been designed to comply with local and state regulations, and the following environmental planning documents and correspondence:

1. City of Sacramento Final Environmental Impact Report (EIR) Railyard Specific Plan/Richards Boulevard Area Development Plan (1993 EIR);
2. City of Sacramento Final Supplemental EIR (1993 Supplemental EIR; November 9, 1993, SCH #91042057);
3. Railyard Specific Plan/Richards Boulevard Area Development Plan (October 1994; SCH #91042057);
4. The Memorandum of Understanding Among DTSC, City of Sacramento, and Southern Pacific Transportation Company Concerning Remediation and Redevelopment of the Sacramento Locomotive Works, Sacramento, California (MOU; December 2, 1994);
5. City of Sacramento Final EIR for 7th Street Extension Project (7th Street EIR; February 1999, SCH #98092023);
6. Final Industrial Wastewater Lagoon Remedial Action Plan for Soil (RAP; ERM, 1998);
7. Final Amended Industrial Wastewater Lagoon Remedial Action Plan for Soil (2000 Amended LSA RAP; ERM, 2000a);
8. LSA Health Risk Assessment and Focused Feasibility Study (HRA and Focused FS; ERM, July 2002);

9. Amendments to Lagoon Study Area Remedial Action Plan for Northwest Corner Soil (2003 Amendments to LSA RAP for NW Corner Soil; ERM, 2003);
10. Asbestos Contingency Plan (ERM, February 2003);
11. Correspondence to Department of Toxic Substances Control, Proposed Modifications to Lagoon Study Area Remediation Approach-Former SPTCo. Rail Yard, Sacramento, California (ERM, August 5, 2003);
12. ERM-West, Inc. (ERM). Remedial Design and Implementation Plan-Lagoon Study Area Northwest Corner, Sacramento Rail Yard for Union Pacific Railroad Company, 6 July 2004 (2004 RDIP);
13. Correspondence to Department of Toxic Substances Control, Explanation of Significant Difference-Amendment to Remediation Approach (ERM, March 14, 2005);
14. Correspondence to Regional Water Quality Control Board, Definition of Inert Material for Use as Cap Backfill, Lagoon Study Area Northwest Corner (ERM, March 29, 2005);
15. Correspondence to Union Pacific Rail Road, Report of Waste Discharge, Lagoon Study Area Northwest Corner, Former SPTCo. Sacramento Rail Yard, Sacramento, California (RWQCB, April 14, 2005);
16. Health Risk Assessment Addendum, Lagoon Study Area Northwest Corner, Former SPTCo. Sacramento Rail Yard, Sacramento, California (ERM, May 2005);
17. Response to DTSC Comments - Modified Cap Proposal, Lagoon Study Area Northwest Corner, Lagoon Study Area Northwest Corner, Former SPTCo. Sacramento Rail Yard, Sacramento, California (ERM, August 14, 2006);
18. Correspondence from City of Sacramento to DTSC - Modified Cap Proposal, SA Northwest Corner Soils (August 25, 2006).

PUBLIC PARTICIPATION

Upon issuance of this ESD, a notification to the public will be displayed in the Sacramento Bee newspaper. The ESD and site Administrative Record for the SPTCo cleanup project is available for public review, by appointment between the hours of 8:00 am to 5:00 pm at the following information repository:

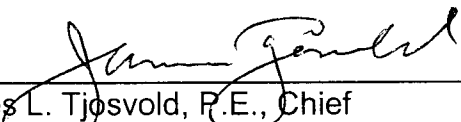
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, California 95826-3200
(916) 255-3758

The ESD may also be viewed at:

Sacramento Public Library
828 I Street
Sacramento, California 95814

Reference Library, Local Government Documents Section

For additional information, please contact Paul Carpenter (DTSC project manager) at (916) 255-6534.



James L. Tjosvold, P.E., Chief
Northern California-Central Cleanup Operations Branch
Department of Toxic Substances Control

Date 9/13/06

Attachment A: Map showing NW Corner Site Boundary

ATTACHMENT A

MAP SHOWING NW CORNER SITE BOUNDARY

ATTACHMENT A
MAP SHOWING NW
CORNER BOUNDARIES

LAGOON NORTHWEST CORNER CAP AREA

SCALE
VERTICAL: 1"=50'
HORIZONTAL: 1"=50'

